Amendments to the Claims

Kindly amend claims 1, 7, 16, 22 & 31, add new claims 33-39, and cancel claims 4-6, 9, 12-15, 19-21, 24, 27-30 & 32 (without prejudice) as set forth below. All pending claims are reproduced below, with changes in the amended claims shown by underlining (for added matter) and strikethrough/ double brackets (for deleted matter).

1.   (Currently Amended) A method of filtering pixels of video frames, said method comprising:

obtaining pixel values of video frames of a plurality of video frames;
[[and]]

employing a programmable horizontal filter to programmably, spatially horizontally filtering filter said pixel values of said video frames using a first set of filter coefficients;

during said horizontally filtering of pixel values using the first set of filter coefficients, dynamically loading a second set of filter coefficients into said programmable horizontal filter; and

switching said programmable horizontal filter to horizontal filtering pixel values using the dynamically loaded second set of filter coefficients upon reaching a frame boundary between video frames of said plurality of video frames.

2.   (Original) The method of claim 1, wherein said horizontally filtering comprises programmably horizontally noise filtering said pixel values of said video frames.

3.   (Original) The method of claim 2, wherein said horizontally filtering further comprises programmably image scaling said pixel values of said video frames.

4-6.   (Cancelled).

7.   (Currently Amended) The method of claim [[4]] 1, wherein said filter coefficients comprise at least two programmable luminance filter coefficients and at least two programmable chrominance filter coefficients.

8.   (Original) The method of claim 7, wherein said at least two luminance filter coefficients and said at least two chrominance filter coefficients are dynamically programmable during said horizontally filtering of pixel values of said video frames.

9.   (Canceled).

10.   (Original) The method of claim 1, wherein said horizontally filtering further comprises programmably selecting whether to perform horizontal noise reduction filtering only, or horizontal noise reduction filtering and image scaling on said pixel values of said video frames.

11.   (Original) The method of claim 10, further comprising implementing said method within preprocessing logic of a video encode system, wherein said horizontally filtering occurs in real time.

12-15. (Canceled).

16.   (Currently Amended) A system for filtering pixels of video frames, said system comprising:

        means for obtaining pixel values of video frames of a plurality of video frames; [[and]]

        a programmable horizontal filter, said programmable horizontal filter comprising means for programmably, spatially horizontally filtering said pixel values of said video frames using a first set of filter coefficients;

        means for dynamically loading a second set of filter coefficients into the programmable horizontal filter during said horizontally filtering of pixel values using the first set of filter coefficients; and

END920010078   -3-

means for switching the horizontal filter to horizontal filtering of pixel values using the dynamically loaded second set of filter coefficients upon reaching a frame boundary between video frames of said plurality of video frames.

17.   (Original) The system of claim 16, wherein said means for horizontally filtering comprises means for programmably horizontally noise filtering said pixel values of said video frames.

18.   (Original) The system of claim 17, wherein said means for horizontally filtering further comprises means for programmably image scaling said pixel values of said video frames.

19-21. (Canceled).

22.   (Currently Amended) The system of claim [[19]] 16, wherein said filter coefficients comprise at least two programmable luminance filter coefficients and at least two programmable chrominance filter coefficients.

23.   (Original) The system of claim 22, further comprising means for dynamically programming said at least two luminance filter coefficients and said at least two chrominance filter coefficients during said horizontally filtering of pixel values of said video frames.

24.   (Canceled).

25.   (Original) The system of claim 16, wherein said means for horizontally filtering further comprises means for programmably selecting whether to perform horizontal noise reduction filtering only, or horizontal noise reduction filtering and image scaling on said pixel values of said video frames.

26.   (Original) The system of claim 25, further comprising means for implementing said system within preprocessing logic of a video encode system, wherein said horizontally filtering occurs in real time.

27-30. (Canceled).

END920010078   -4-

31.   (Currently Amended) At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of filtering pixels of video frames, said method comprising:

obtaining pixel values of video frames of the plurality of video frames; [[and]]

programmably, spatially horizontally filtering said pixel values of said video frames using a first set of filter coefficients;

during said horizontally filtering of pixel values using the first set of filter coefficients, dynamically loading a second set of filter coefficients; and

switching the horizontal filtering of pixel values to using the dynamically loaded second set of filter coefficients upon reaching a frame boundary between video frames of said plurality of video frames.

32.   (Canceled).

33.   (New) The method of claim 1, wherein said horizontally filtering comprises programmably horizontally noise filtering and image scaling said pixel values of said video frames.

34.   (New) The method of claim 33, wherein said programmably horizontally noise filtering and image scaling of said pixel values occurs in real time.

35.   (New) The method of claim 34, wherein said first set of filter coefficients and said second set of filter coefficients each comprises multiple banks of coefficients and wherein said horizontally filtering occurs on the fly.

36.   (New) The method of claim 35, wherein each set of filter coefficients comprises multiple phases of filter coefficients, and wherein each phase comprises a distinct and separate group of filter taps.

37.   (New) The method of claim 36, further comprising employing a single phase of said multiple phases when noise filtering said pixel values and employing at least two phases of said multiple phases when image scaling said pixel values, said one phase being other than said at least two phases.

38.   (New) The method of claim 37, further comprising allowing programmable selection of a set of filter coefficients and a phase of the set of filter coefficients for initial use in horizontally filtering said pixel values.

39.   (New) The method of claim 35, wherein said switching comprises dynamically switching between said sets of filter coefficients on a per frame basis for a sequence of frames of the plurality of video frames.

* * * * *